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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,680	04/20/2001	Robin Speed	MS1-600US	1810

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EXAMINER

CZEKAJ, DAVID J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,680

Applicant(s)

SPEED ET AL.

Examiner

Dave Czekaj

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radha et al. (6639943), (hereinafter referred to as "Radha") in view of Rose (6731811).

Regarding claims 1, 8, 9, 10, and 19, Radha discloses an apparatus that relates to fine granular coding that includes both quality and temporal scalability (Radha: column 1, lines 11-13). This apparatus comprises "generating a motion compensated prediction of a region of content" (Radha: figure 7, column 7, lines 49-51, wherein the motion compensated prediction is generated by the motion estimation block, the region of content is the frames/streams), "receiving an indication of whether there are first and second quantities of residual samples remaining" (Radha: figures 5A and 8A, wherein the residual samples are contained with the enhancement and base layers, the indication is the process from moving from one layer to the next. The examiner notes that the apparatus would not move from one layer to the next without all necessary data needed for

further processing. Therefore a move from one layer to the next would indicate whether there are first and second quantities of residual samples) and "adding the first quantity of residual samples to the prediction" (Radha: figure 7, column 3, lines 15-27). However, Radha fails to show the subtraction as claimed. Rose teaches that prior art coding systems cause undesired conflicts when trying to take advantage of additional information available to the enhancement layer (Rose: column 2, lines 10-14). To help alleviate this problem, Rose discloses "subtracting the second quantity of residual samples from the refined prediction value to generate a final representation" (Rose: figure 5, wherein the second set of residual samples is the multiple enhancement layers). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the apparatus disclosed by Radha and add the subtraction method taught by Rose in order to obtain an apparatus that operates more efficiently by being able to take advantage of additional information given to a system.

Regarding claims 2 and 13, Radha discloses "the first and second residual samples are eight bit samples" (Radha: column 5, lines 37-45, wherein the pixel represents one byte or eight bits).

Regarding claims 3, 14, and 17, Radha discloses "performing an inverse discrete cosine transform of decoded transform domain representation of residual differences to be added to the motion compensated prediction" (Radha: figure 10, wherein the inverse discrete cosine transform is the inverse DCT, the

addition is performed by the adder (item 58), and the motion compensated prediction is performed by the motion compensation block).

Regarding claims 4, 7, 12, and 18, although not disclosed, the region of content could comprise a macroblock (Official Notice). Doing so would have been obvious since macroblocks are well known in the MPEG environment.

Regarding claims 5 and 16, Radha discloses "generating a prediction of media is performed by a graphics accelerator under the control of a decoder application" (Radha: figure 10, wherein the accelerator comprises the motion compensation and inverse DCT blocks).

Regarding claim 6, Radha discloses "sending prediction control information necessary for generation of a motion compensated prediction to the accelerator" (Radha: figure 10, wherein the accelerator comprises the motion compensation and inverse DCT blocks, the prediction control information is the enhancement and base layers and inverse quantization parameters), "sending an indication and the samples to the accelerator of whether the first and second samples are to be applied" (Radha: figures 5A and 8A, wherein the indication is the process from moving from one layer to the next indicating there are layers remaining), and "performing processing at the accelerator (Radha: figure 10, wherein the accelerator comprises the motion compensation and inverse DCT blocks which perform processing of the samples).

Regarding claim 11, note the examiners rejection for claims 5 and 6.

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Regarding claims 15 and 20, Radha discloses the complementary decoder performing the operations of the encoder disclosed in the preceding claims. The decoder also comprises an "application program interface" (Radha: column 9, lines 57-59, wherein the interface is the application that runs to obtain the user input).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (571) 272-7327. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJC


VU LE
PRIMARY EXAMINER